

AMENDMENTS TO THE CLAIMS

Claim 1 (Currently Amended) A substrate processing apparatus, comprising:

a stocker which stores a multiplicity of dummy substrates;

a reaction chamber which cleans one or more dummy substrates selected among the dummy substrates stored in the stocker and batch-processes a plurality of process substrates to be used for producing semiconductor products;

a boat which loads into the reaction chamber the process substrates and a portion of the dummy substrates stored in the stocker in order to process the process substrates and loads said one or more dummy substrates to clean same;

a carrier which transfers the process substrates, the portion of the dummy substrates and said one or more dummy substrates to the boat; and

a process gas line which is coupled to a source of process gas and is configured for introducing said process gas into said chamber and a film is formed on said substrate or dummy substrate in said chamber; and

a cleaning gas line which introduces a cleaning gas into the reaction chamber to thereby clean said one or more dummy substrates within the reaction chamber is coupled to a source of cleaning gas and is configured for introducing said cleaning gas into said chamber and said film formed on said dummy substrate is removed in said chamber.

Claim 2 (Previously presented) The apparatus as recited in claim 1, further comprising a counter which counts the number of usages in batch-processing of each dummy substrate stored in the stocker and wherein the number of usages of said one or more dummy substrates is not greater than a predetermined number.

Claim 3 (Previously presented) The apparatus as recited in claim 1, wherein all the dummy substrates stored in the stocker are simultaneously cleaned in the reaction chamber.

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Claim 4 (Original) The apparatus as recited in claim 1, wherein the process substrates and the dummy substrates are silicon wafers and quartz wafers, respectively.

Claim 5 (Original) The apparatus as recited in claim 1, wherein the process substrates and the dummy substrates are silicon wafers and alumina coated silicon wafers on top and bottom surfaces thereof, respectively.

Claim 6 (Previously presented) The apparatus as recited in claim 1, wherein the boat is simultaneously cleaned while cleaning the dummy substrates.

Claim 7 (Previously presented) The apparatus as recited in claim 6, wherein the reaction chamber is simultaneously cleaned while cleaning the dummy substrates.

Claim 8 (Previously presented) The apparatus as recited in claim 1, wherein the boat is a quartz boat which accommodates a predetermined number of substrates.

Claims 9 - 12 (Cancelled).

Claim 13 (Currently amended) A substrate processing apparatus, comprising:
a processing chamber;
a boat which loads a plurality of substrates into the processing chamber;
a stocker which stores at least dummy substrates loaded into the processing chamber together with substrates to be used for processing semiconductor products, when the substrate are carried out process except cleaning process;
a transfer device ~~for transferring~~ which transfers the dummy substrates stored in the stocker between the boat and the stocker; and
a process gas line which is coupled to a source of process gas and is configured for introducing said process gas into said chamber and a film is formed on said substrate or dummy substrate in said chamber; and

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a cleaning gas line which is coupled to a source of cleaning gas and is configured for introducing said cleaning gas into said chamber and said film formed on said dummy substrate is removed in said chamber ~~supplies a cleaning gas into the processing chamber in order to clean the dummy substrates while the dummy substrates are held in the processing chamber.~~

Claim 14 (Previously Presented) The apparatus as recited in claim 13, further comprising a counter which counts the number of usages of each dummy substrate stored in the stocker and determines whether said each dummy substrate reached a predetermined usage limit or not and

wherein one or more dummy substrates determined as reaching the predetermined usage limit are transferred from the stocker to the boat by the transfer device and the cleaning gas line supplies the cleaning gas into the processing chamber in order to clean said one or more dummy substrates while said one or more dummy substrates are held in the processing chamber.

Claim 15 (Previously Presented) The apparatus as recited in claim 13, wherein all the dummy substrates stored in the stocker are simultaneously cleaned in the processing chamber.

Claim 16 (Previously Presented) The apparatus as recited in claim 13, wherein the substrates and the dummy substrates are silicon wafers and quartz wafers, respectively.

Claim 17 (Previously Presented) The apparatus as recited in claim 13, wherein the substrates and the dummy substrates are silicon wafers and alumina coated silicon wafers on top and bottom surfaces thereof, respectively.

Claim 18 (Previously Presented) The apparatus as recited in claim 13, wherein the boat is simultaneously cleaned while cleaning the dummy substrates.

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Claim 19 (Previously Presented) The apparatus as recited in claim 18, wherein the processing chamber is simultaneously cleaned while cleaning the dummy substrates.

Claim 20 (Previously Presented) The apparatus as recited in claim 13, wherein the boat is a quartz boat which accommodates a predetermined number of substrates.

Claim 21 (Previously Presented) The apparatus as recited in claim 20, wherein the ratio of the number of said portion of the dummy substrates to that of the substrates is fixed and the capacity of the stocker is n times the number of said portion of the dummy substrates, n being a positive integer.

Claim 22 (Currently Amended) A substrate processing apparatus, comprising:

- a processing chamber;
- a substrate support which supports in the processing chamber at least one of substrate to be used for producing semiconductor products or at least one of dummy substrate;
- a stocker which stores the dummy substrate;
- a transfer device which transfers to the substrate support the substrate to be used for producing the semiconductor products which is/are processed in the processing chamber and transfers between the substrate support and the stocker the dummy substrate which is/are processed in the chamber; and
- a process gas line which is coupled to a source of process gas and is configured for introducing said process gas into said chamber and a film is formed on said substrate or dummy substrate in said chamber; and
- a cleaning gas line which is coupled to a source of cleaning gas and is configured for introducing said cleaning gas into said chamber and said film formed on said dummy substrate is removed in said chamber ~~supply a cleaning gas into the processing chamber while the dummy substrates which have been processed in the processing chamber are supported by the substrate support in the processing chamber.~~